

# Luigi Ceccarelli's Cadenza: An Analytical Étude

*The interpretation and analysis of electronic music can be daunting for those unfamiliar with the medium. In this paper I describe how new listeners of acousmatic music can interpret electronic music through a variety of perspectives, including the comparison of electronic music to acoustic classical practice and by applying Denis Smalley's concept of "source bonding." I have provided an analysis of Luigi Ceccarelli's Cadenza as an example of how these approaches can be applied in practice. This analysis focuses on the relationship between noise and resonance, correlations between timbre and instrumentation, and connections between classical concepts of texture and "source bonding." I give special attention to the phenomenon of ascribed agency in electronic music as a method for engaging with the music. Following this analysis, I discuss the relationship between interpretation and analysis in regards to acousmatic music. I draw a connection between interpretation on the part of the listener and formal analysis on the part of the theorist and I argue a case for the imaginative in both electronic and acoustic music.*

## **Introduction**

Originally called *musique concrète*, acousmatic music is music that is intended to be played solely through speakers with no human performer. Since its inception, the issue of how to interpret this music has been frequently debated.<sup>1</sup> The analyst must consider how one analyzes music that usually lacks a score, often treats timbre as the primary structural element, and has no performer.<sup>2</sup> Similarly, the audience member who is accustomed to the classical concert hall must develop an interpretive framework for music that often de-emphasizes rhythmic and pitch relationships in favor of timbral and spatial elements, has no performer, and is played through speakers in a dark concert hall.

Throughout its development, tools for analyzing and describing acousmatic music

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<sup>1</sup> Simon Atkinson, "Interpretation and musical signification in acousmatic listening," *Organised Sound* 12, no. 2 (2007): 113.

<sup>2</sup> Marco Stroppa, "The Analysis of Electronic Music," *Contemporary Music Review* 1, no. 1 (1984): 177.

have been developed by theorist/composers such as Pierre Schaeffer and Denis Smalley. These tools deeply influence how acousmatic music is understood by its practitioners and devotees.<sup>3</sup> Denis Smalley's concepts are particularly useful for listeners initially approaching acousmatic music. In his article, "Spectromorphology: explaining sound shapes," Smalley puts forth a method for describing, analyzing, and thinking critically about the materials of electronic music. In this article, he examines certain mechanisms of how listeners perceive sound. One of these mechanisms he terms "source bonding," which he defines as "the *natural* tendency to relate sounds to supposed sources and causes, and to relate sounds to each other because they appear to have shared or associated origins."<sup>4</sup> Smalley explains that sound is indicative of motion and therefore energy, describing gesture as "an *energy-motion trajectory* which excites the sounding body, creating spectromorphological life."<sup>5</sup>

In essence, Smalley's concept of source-bonding is that listeners perceive certain sounds as caused by *something* in the absence of visual stimuli, which in turn leads us to theorize about the source of the sound. When we hear a sound, we infer that something has moved in a way that has produced the sound even if we cannot see what it is.<sup>6</sup> Elements such as similarity of timbre, density of sound, and spatial placement are all cues that allow us to hypothesize about the cause of a sound in the absence of visual stimuli and to group sounds together. Smalley explains that the mechanism of "source bonding" is a key component of how sound is perceived and is also an important component of how we

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<sup>3</sup> Natasha Barrett, "Spatio-musical composition strategies," *Organised Sound* 7, no. 3 (2002): 314.

<sup>4</sup> Denis Smalley. "Spectromorphology: explaining sound-shapes." *Organised Sound* 2, no. 2 (1997): 110

<sup>5</sup> Smalley, "Spectromorphology," 111.

<sup>6</sup> Smalley, "Spectromorphology," 110.

experience electronic music.<sup>7</sup>

Source bonding can allow any listener to begin analyzing the materials of electronic music and creating imaginative explanations for what they might mean. Though Smalley's writings were in many ways intended to provide grounds for increased engagement and understanding, the numerous articles and papers that discuss how engagement with this music can be better facilitated are evidence of the continued gulf between the world of concert electronic music and those outside this world.<sup>8</sup>

### **Complicating Factors**

Though the analysis of acousmatic music presents unique challenges, analysis in general is a complicated subject. In his article, "How We Got Out of Analysis and How to Get Back in Again," Kofi Agawu – speaking specifically about acoustic classical music – engages a musicological debate centered around Joseph Kerman's article, "How We Got Into Analysis, And How to Get Out."<sup>9</sup> In this article, Agawu critiques Kerman's proposition that analysis should be "[mediated by] history, aesthetics, and...criticism."<sup>10</sup> Agawu instead argues that analysis should be concerned primarily with the materials provided by the music itself.<sup>11</sup> He cites Theodor Adorno's thoughts on analysis, claiming that the purpose of analysis is to come into contact with the "truth content" of the work.<sup>12</sup>

Agawu's conception of analysis is that it is an activity that should draw us nearer to

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<sup>7</sup> Smalley, "Spectromorphology," 110.

<sup>8</sup> See: Curtis Bahn, Tomie Hahn, and Dan Trueman, "Physicality and feedback: a focus on the body in the performance of electronic music" *Proceedings of the International Computer Music Conference*, (2001): 44, and Kim Cascone. "Grain, sequence, system: Three levels of reception in the performance of laptop music," *Contemporary Music Review* 22, no. 4 (2003): 101.

<sup>9</sup> Kofi Agawu, "How We Got Out of Analysis, and How to Get Back In Again," *Music Analysis* 23, no. 2-3 (2004): 267-270.

<sup>10</sup> Agawu, "How We Got Out of Analysis," 269.

<sup>11</sup> Agawu, "How We Got Out of Analysis," 269-270.

<sup>12</sup> Agawu, "How We Got Out of Analysis," 267.

the true meaning of the work despite the fact that this meaning is “not...a concrete presence that can be beheld but... a constantly receding target that becomes more elusive the closer one gets to it.”<sup>13</sup> He also calls the truth content the “surplus,” what I take to mean as the singularity and uniqueness of the work and the inspiration that the work facilitates in its interpreters and listeners, essentially that which is left over when all else has been accounted for.<sup>14</sup> Agawu states that:

The truth content is not necessarily a literal, empirical truth but rather a dynamic, motivating truth designed partly to anchor listening in specific sociocultural and historical moments even while – and this is the paradox of it – releasing the analyst from the dubious responsibility of having to establish the authenticity of the analysis.<sup>15</sup>

Agawu goes on to speak of analysis as both performance and composition, explaining that analysis is an imaginative endeavor that engages creatively with the materials of the piece itself and presents potential interpretations and ways of hearing that are unique to the piece.<sup>16</sup> Agawu’s discussion illustrates the complexity of musical interpretation in any context, but he makes clear that the purpose of analysis is in some way, to understand.

My approach in this paper is to equate listening with interpretation, interpretation with analysis, and analysis with an attempt to understand the truth content or meaning of the work. Every listener is an interpreter and therefore analyzes music. I use Agawu’s conception of analysis as composition or performance as a prompt for what I call an “analytical étude” of Luigi Ceccarelli’s electronic composition, *Cadenza*. I use the term étude because I view this paper as a study of both how to analyze acousmatic music and an

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<sup>13</sup> Agawu, “How We Got Out of Analysis,” 272-273.

<sup>14</sup> Agawu, “How We Got Out of Analysis,” 272.

<sup>15</sup> Agawu, “How We Got Out of Analysis,” 273.

<sup>16</sup> Agawu, “How We Got Out of Analysis,” 274-279.

observation of how the process of analysis takes place. I find the term *étude* particularly appropriate because of the creative, non-authoritative approach that I wish to take. In the same way that a musical *étude* can teach an objective musical skill while incorporating imaginative presentations and interpretations, so do I want this analysis to deal with the objective facts of the composition while incorporating the imaginative and the subjective.

In order to accomplish this goal, this “*étude*” incorporates multiple interpretive approaches, including empirical, comparative, and imaginative lenses of interpretation. I use the writings of Agawu and Smalley throughout as a foundation for inquiry and description. It is important to note that my analytical reading is meant to be consulted and critiqued in conjunction with the piece itself (*Cadenza* is freely available for listening online.)<sup>17</sup> I invite listeners to explore their own interpretations. The ultimate purpose of this study is to help the new listener of acousmatic music imaginatively engage with both *Cadenza* and other acousmatic works by demonstrating how a variety of perspectives can allow for a deeper understanding of acousmatic music.

### ***Cadenza: An Overview***

Written in 2010 by the Italian composer Luigi Ceccarelli, *Cadenza* was dedicated to the Belgian electroacoustic composer Annette Van de Gorne in honor of her birthday.<sup>18</sup> The composition, which was written for 5.1-channel surround sound (analyzed here in stereo), utilizes as its primary sound material audio from two separate performances, one by the contrabassist Daniel Roccato and the other from the violinist Diego Conti.<sup>19</sup> Ceccarelli has

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<sup>17</sup> Luigi Ceccarelli. “Cadenza,” *SoundCloud.com*, n.d., Sound Recording, <https://soundcloud.com/luigi-ceccarelli/cadenza>

<sup>18</sup> Luigi Ceccarelli. “Cadenza,” *EdisonStudio*, Edison Studio, (n.d.): 1, <http://www.edisonstudio.it/en/portfolio-items/cadenza/>

<sup>19</sup> Ceccarelli, “Cadenza,” 1.

frequently performed with Roccato in an improvisational duo consisting of electronics and contrabass.<sup>20</sup> Ceccarelli stated that his intentions for *Cadenza* were:

to create the impression of a complex hybrid man-machine that would enhance the virtuosic performance beyond merely human capacities by means of an extreme emphasis on gestures, amplified by a mechanical/digital machine and expanded into space in all of its teeming details.<sup>21</sup>

When initially confronting the unfamiliar materials of electronic music, interpretation usually begins with comparison to the familiar. The composer Natasha Barrett described this process, saying “...when neither source nor causality are clearly recognizable, we find ways to place the sound into the context of our knowledge of the world...”<sup>22</sup> The inspiration for *Cadenza* clearly has its roots in the world of classical music practice. Ceccarelli’s citation of “the virtuosic performance,” the improvisatory relationship between Ceccarelli and Roccato, and the title of the work all imply that the genre of the concerto influenced Ceccarelli in the creation of this work. Comparing the electronic medium of the piece and classical music practice provides an initial area of exploration for the listener.

From a general perspective, one of the primary structural processes of *Cadenza* is a movement from non-pitched percussive materials to pitch-based percussive materials. Specifically, the trajectory of *Cadenza* can be observed as a gradual combination of two sonic phenomena, noise and resonance. Noise is sound that is broadly distributed across the frequency spectrum with no particular emphasis, such as static on a TV. Conversely, resonance is the cancellation and emphasis of certain frequencies within the frequency

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<sup>20</sup> Luigi Ceccarelli. “X-Traces,” *EdisonStudio*, Edison Studio, (n.d.): 1, <http://www.edisonstudio.it/en/portfolio-items/x-traces/>

<sup>21</sup> Ceccarelli, “Cadenza,” 1.

<sup>22</sup> Barrett, “Spatio-musical composition strategies,” 314.

spectrum based on the shape, size, and acoustic reflective properties of a sounding body.<sup>23</sup> When resonance is narrow and regular enough it will result in pitch, such as a blown bottle. The particular way that noise is shaped and organized by a sounding body through processes of sonic reflection and interference is what creates the instrumental timbre of a trumpet, a violin, or a guitar (See Ex. 1.)<sup>24</sup>

Accompanying the integration of noise and resonance throughout the piece is what I choose to call a movement from “electronic” timbres to “instrumental” timbres. Electronic timbres are here used to describe sounds that are not easily related to or described by common instrumental sounds. Instrumental timbres are those that can be classified according to outside instrumental reference, such as “string sounds,” “snare drum sound,” etc. The quotations denote the inadequacy of these designations, given that acoustic instruments initially produced the sonic material, which was then recorded by electronics, processed electronically, and in performance is produced by electronics. Nevertheless, these designations provide a practical way of categorizing events within the piece. The dual processes of integrating noise and gradually replacing electronic timbres with instrumental timbres are useful methods for observing the formal structure of *Cadenza*.

### **Cadenza: Part One**

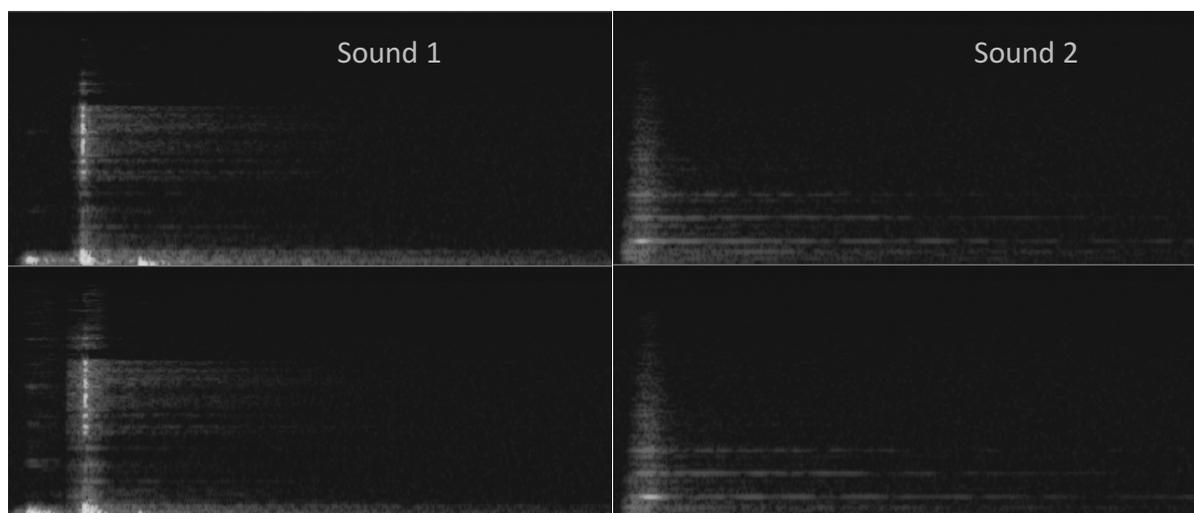
The overall form of *Cadenza* can be divided into three major sections (Ex.2). Within the first section, I have identified two subsections and two interludes (Ex.3). The first subsection is comprised of primarily percussive, noise-based material and is followed by an interlude of sustained reverberant material. This interlude presents a clear example of resonance that

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<sup>23</sup> Jeffrey Hass, “An Acoustics Primer,” *Indiana University*, Center for Electronic and Computer Music, (2003): 9, <http://www.indiana.edu/~emusic/acoustics/resonance.htm>

<sup>24</sup> Hass, “An Acoustics Primer,” 9.

### Ex. 1: Spectrograms of the first and last sounds of *Cadenza*



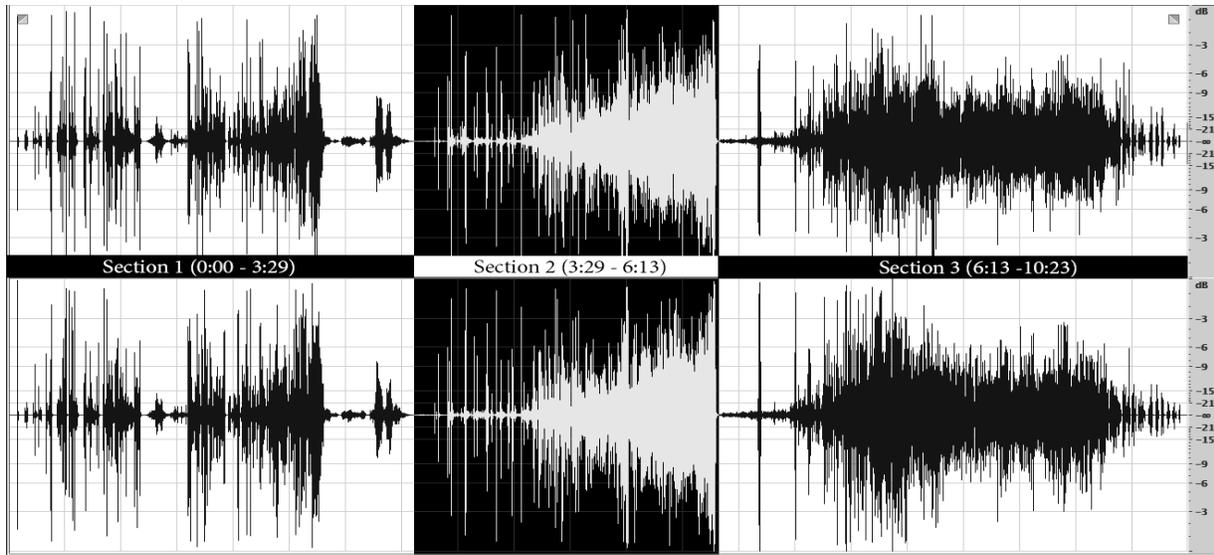
*The first sound's amplitude is distributed broadly across the frequency spectrum, whereas the last sound shows a more constricted and regular pattern of distribution. The lines display the harmonic series, illustrating the pitched nature of the sound. The noise that remains, in conjunction with the pitch, produces the timbre of the sound.*

contrasts with the preceding noise-based material. In the second sub-section a crescendo of dynamic interplay between the percussive and resonant materials occurs before a final interlude of resonant material concludes the first section.

The arrangement of materials in this section can be seen as expository. Examples of noise-based and resonant material are presented as separate and isolated, plainly setting forth the materials that will be developed as the piece progresses. There are sounds within this section that are pitched, but I hear them as structurally unimportant at this point in the piece, considering they do not occupy the foreground and they have no apparent pitch organization. The pitched elements appear to be secondary to the elements of rhythm, timbre, and especially texture.

In regards to texture, Smalley's previously mentioned concept of "source bonding" provides a valuable method for investigating *Cadenza*. When we theorize about the source of a sound, one potential, *imagined* explanation is that the sound has been

## Ex. 2: Annotated waveform of the overall form of *Cadenza*

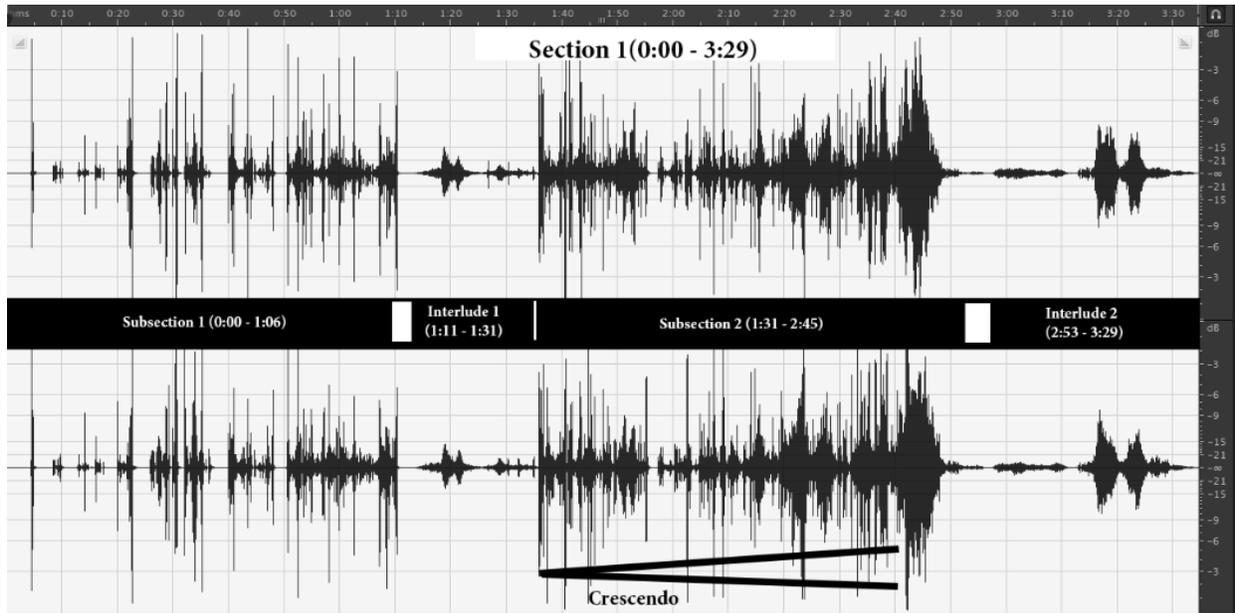


*A representation of Cadenza's waveform (amplitude/time) divided into the three major sections with the time of each section given in minutes and seconds. The gaps in time indications are silences.*

intentionally caused by an unseen actor, agent, or instrumentalist. Thinking of sounds as actions by an instrumentalist allows for descriptions of texture common to acoustic practice. These concepts of texture (polyphony, homophony, etc.) are excellent constructs for exploring common elements in electronic music, such as the use of space and the structural use of timbre.

In the first subsection of the first section of *Cadenza*, the material could be described as monophonic, i.e. implying a single actor or agent. The sound in this section is distributed fairly widely in space and is timbrally varied which could imply multiple actors, but the low density of attack points leads me to interpret the sounds as the actions of one invisible agent. However, the sustained resonant material that follows implies something other than merely movement; the reverberant qualities denote a new space into which the sonic material has entered. In this interlude, the skittering sounds could be described as intentional sounds caused by an invisible agent or could be compared to the melody in

### **Ex. 3: Annotated waveform of *Cadenza's* first section**



*The contrast between the reverberant materials of interludes 1 and 2 and the more percussive material of subsections 1 and 2 are illustrated.*

homophonic texture, in this case sounding against the accompaniment of a resonant space.

In the second subsection, the skittering sounds of the first interlude interact with the noise-based elements of the first subsection to create a two-voice polyphonic texture. This texture includes brief interactions with the resonant material of the first interlude. These postulations demonstrate how concepts of texture can be used to interpret spatial elements, sound types, and the implied movement evoked by a sound from an invisible source.

### ***Cadenza: Part Two***

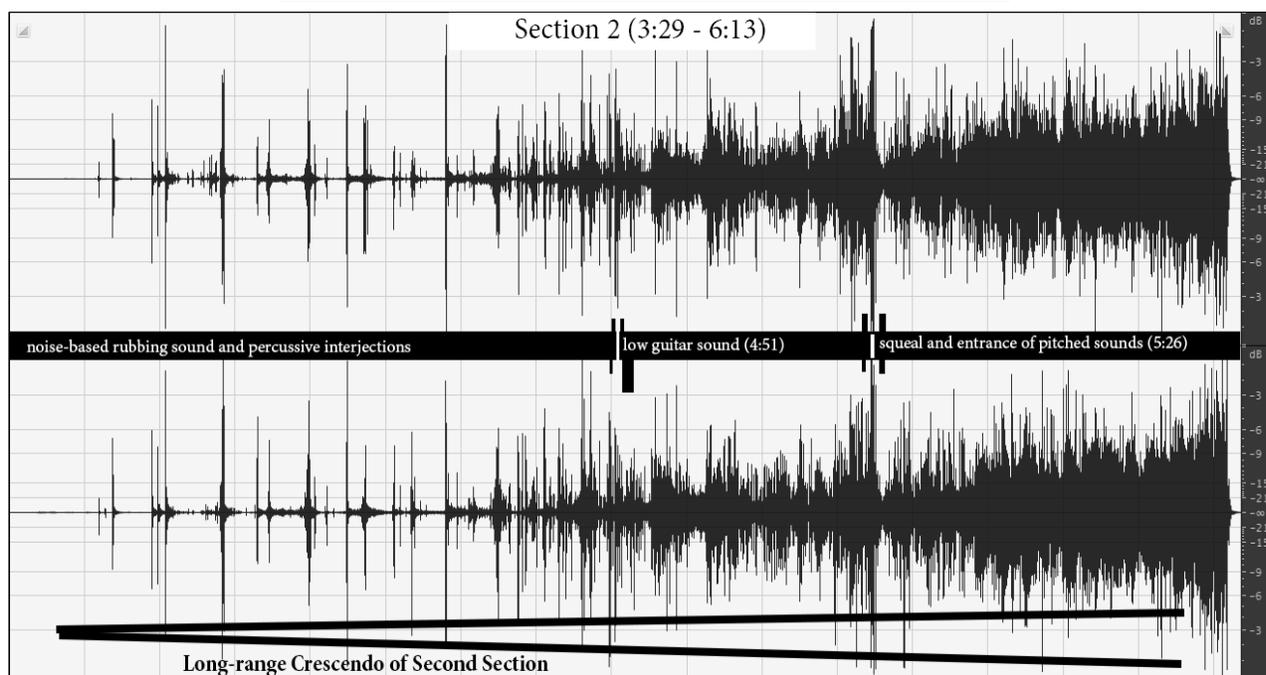
The second major section of the work (Ex. 4) consists of a large crescendo, observable as an expanded version of the crescendo found in the first section. It begins with a noise-based rubbing sustained sound that could represent a transformation of the sustained resonance of the earlier section into sustained noise-based material. The percussive interjections that continue from the first section are accompanied by increased

reverberation. Resonance and noise are now more integrated. In contrast to the disconnected presentation of the first subsection and interlude, the noise-based material is now the excitation source for the reverberation or resonance. At 4:51, a low electric guitar-type sound heralds the addition of more pitched percussive sounds and resonance increases further. At 5:26, a squealing sound, itself clearly pitched, announces the arrival of the most explicitly pitched and instrumental sounds heard thus far.

Until this point, most of the sounds heard have not clearly emulated any conventional instrumental sounds, but as pitch becomes more pronounced in the second section, so do instrumental timbres. Additionally, the pitched sounds introduced by the squeal are the most reminiscent of the source material of violin and double bass, having a pronounced string-like timbre. The squeal is also accompanied by a percussive sound that evokes the sound of a snare drum. The starkness of pitch in the squealing glissando, the interjection of drum sounds, and the addition of pitched string sounds, all of which occur at the climax of a nearly three-minute crescendo combine to signify an important structural moment in the progress of the piece. The initial sonic material has yielded to or been transformed into instrumental timbres and the elements of noise and resonance have been brought into closer proximity, ultimately presented as unified in the first structurally important pitched sounds.

In regards to texture, the continuous friction that begins the second section could be perceived as the accompaniment in a homophonic texture that then builds to a dense polyphony. The percussive interjections against the friction sound can be heard as either the melody or the actions of a separate instrumentalist/agent. As it proceeds, the texture gradually incorporates multiple pitches and timbres spread throughout stereo space, giving

#### **Ex. 4 Annotated waveform of *Cadenza's* second section**



*The percussive sounds of the first section are gradually combined with the reverberant material that was presented as separate in the first section. Clearly pitched sounds occupy the foreground at the climax of this section.*

the impression of multiple agents or instrumentalists being added. At the climax of this section, the combination of the separate sounds of the squeal, the snare drum interjections, and the frenetic string sounds all imply multiple agents due to the disparity of timbre, the spatial placement, and the sheer density of sonic material. The texture can be heard as intensely polyphonic, but the squeal clearly occupies the foreground, which could be perceived as the soloist in a concerto.

#### **Cadenza: Part Three**

The third and last section (Ex. 5) presents the culmination of the integration of noise and resonance. Where previously resonance and noise provided the polar extremes in the timbral palette, now pitch has replaced resonance in opposition to noise. Up to this point, pitch has been presented as free-floating in the unstable form of the squeal and noise has

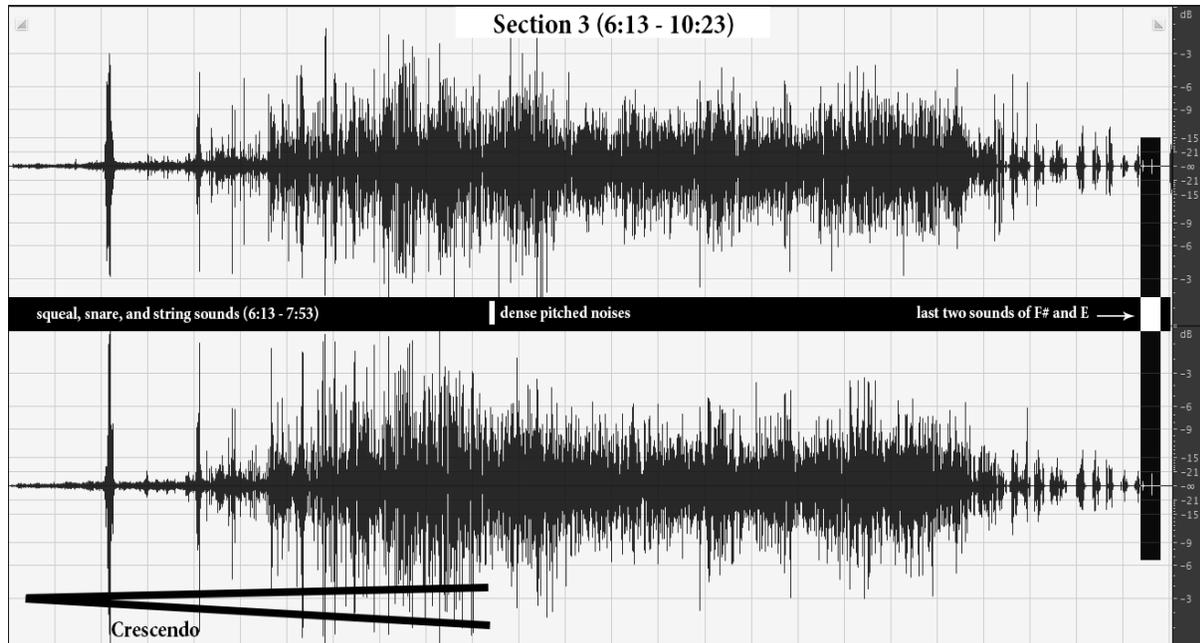
been consolidated into the form of the snare drum sound. The form of the third section can be seen as the gradual combination of these sounds. It is the pitched, percussive string-sounds first announced by the squeal of the second section that ultimately bring the disparate elements of noise, resonance, rhythm, timbre, and pitch into cohesion.

Formally, the section begins with a crescendo that can be seen as related to those found in the first two sections, but one that avoids the abrupt drop to silence found in the previous two sections. The crescendo of the third section instead builds to a preponderance of pitched percussive sounds and ultimately the establishment of a tonal center, E, in the string-sounds. This tonal center is established through the frequent repetition of E and the use of notes including F#, G, and A.

As the section progresses, all remaining noise-based sounds are gradually removed, the range of activity across the frequency spectrum is gradually constricted to normal instrumental ranges, and the sonic material displays an integration of resonance and noise, a unification realized in the form of instrumental timbre. The piece as a whole gradually loses energy as all noises other than the string sounds disappear and the density of sounds subsides before ending on a final two-note cadential gesture F# to E.

There are several interesting elements to note concerning the textural development of the final section. Following the abrupt drop to silence of the second section the squeal's role is inverted. Where the squeal previously performed a melodic role, the drum and string-sounds now do so. The squeal, sounding in the distance, serves as the accompaniment to phrases iterated by the string and snare-sounds. This arrangement of sounds illustrates how spatial placement can contribute to the interpretation of a sound's role in an acousmatic work. The string-sounds, in conjunction with the snare-sounds, are ambiguous

### Ex. 5: Annotated waveform of *Cadenza's* final section



*The familiar crescendo of percussive sounds building to more organized material is illustrated here. The final establishment of pitched noises as the dominant timbre progresses from the end of this crescendo to the final two pitches.*

between the impression of a single agent or two agents interacting against the accompaniment of the squeal. This section could be described as either a homophonic texture or a two-voice polyphonic texture.

In a similar fashion to the second section, the textural process in this section develops roughly from homophony to polyphony. The final establishment of pitch coincides with full-scale polyphony and the impression of an “orchestra” of agents. By the end of the piece the gestures gradually thin, incorporating more silence but continuing the impression of polyphony. The final F# is a minor seventh below the E and is slightly displaced in the stereo field, which to my ear gives even the final cadence the impression of being performed by not one, but two instrumentalists.

This analysis/interpretation demonstrates how analyzing timbre by tracking the relationship between noise and resonance and observing the connections between

traditional concepts of texture, spatial elements, implications of agency, and sonic density are both useful methods for interpreting/analyzing *Cadenza*. These processes are not only applicable to this piece, but also to a variety of other acousmatic works. With these approaches any listener can begin to think critically about and interpret acousmatic music.

### **The Interpretive Approach**

Because of the lack of a score and performer, acousmatic music invites the subjective into the listening experience more so than acoustic classical music. Smalley's discussions of source bonding and attribution of agency are in some ways objective descriptions of how one hears, but there is an imaginative element to this mechanism as well. Smalley says "the wide-open sonic world of electroacoustic music encourages imaginative and imagined extrinsic connections because of the variety and ambiguity of its materials..." he further says that "Source bondings may be actual or imagined...they can be constructs created by the listener."<sup>25</sup>

This analysis of *Cadenza* is meant to offer *some* interpretive mechanisms for understanding elements found throughout acousmatic music, but another aim is to invite the imaginative and subjective into the analytical process and to encourage listeners of acousmatic music to form their own interpretations. Each listener, as a perceiver of music creates his or her own interpretation and is therefore engaged in the process of analysis. Incorporating diverse perspectives, analogies, and constructs into the dialogue around any music can only broaden and deepen one's comprehension of it.

Does this mean that anything goes and all interpretations are equally valid and informative? No. If an audience member says that an acousmatic piece sounds like nothing

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<sup>25</sup> Smalley, "Spectromorphology," 110.

but random bleeps and bloops and another describes a complex process of timbral, spatial, and pitch transformations that enriches the hearing of the piece for many listeners, it is obvious that one interpretation is both more informative and useful than the other.

Returning to Adorno and Agawu's "truth content" it seems clear that an interpretation is valid if it allows for a deeper understanding of the piece. By postulating multiple agents at work throughout *Cadenza*, my analysis contradicts Ceccarelli's stated intentions for the work, when he describes his desire to create a "(singular) complex hybrid man-machine..." Does this mean that my interpretation is wrong because I do not hear the piece as the product of one invisible agent, but many? If mine is right does it mean Ceccarelli's is wrong?

Agawu states in his article that "the analyst must not be distracted by questions of intentionality, as when sceptics wonder whether the composer was conscious of relationships unearthed by the analyst."<sup>26</sup> Roland Barthes famously proclaimed the "death of the author," stating that the meaning of a piece of literature is not an objective truth held by the author that readers seek to uncover, but exists in the interpretation of the reader.<sup>27</sup> Both of these views support the argument that the meaning of a piece is situated within the mind of the listener and the relationships they can discover.

Though Ceccarelli states in his notes on the piece that he wished *Cadenza* to be perceived as the actions of one agent and my interpretation suggests multiple agents, each proposed interpretation is simply a potential way of exploring the piece. The subjective elements of my analysis are meant to adhere to Agawu's thoughts when he says,

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<sup>26</sup> Agawu, "How We Got Out of Analysis," 272.

<sup>27</sup> Roland Barthes, "The Death of the Author," *Image/Music/Text*. Trans. Stephen Heath. New York: Hill and Wang (1977): 147.

“Imaginatively composed explanatory props provide access to a work’s truth content”<sup>28</sup>

When a listener states a perspective on how the piece should be interpreted, its validity should be judged by how it enriches the listening of the piece.

Does this mean then that all interpretations are equally valid provided they mean something to somebody? In some ways, yes. This may present problems for an approach to analysis that prescribes a certain rigor, but just as there are pieces of music that are more complex, subtle, and difficult, so should there be analyses that are geared towards listeners of various levels of expertise. If analysis is akin to composition and performance, then as there are works of various difficulties, there should also be analyses of similar complexities.

This does not mean that each listener should simply choose the interpretation that is the most appealing to him or her. Regardless of the complexity, it is important for an interpretation to engage substantively with the work. To have a variety of analyses and interpretations provides the ground for dialectic between various listeners and interpreters. If my analysis is entirely contrary to the impressions of another listener, it is up to that listener to provide an interpretation that is equally or more explanatory. This is how various analyses can gradually grow towards the “truth content.”

The intention of this study and its approach is to provide a study that lives up to Agawu’s description when he says “A good analysis leads you back to the composition; you re-enter that world, reconsider its making, and resume the process of exploration”<sup>29</sup> Disregarding a given perspective or method of interpretation can limit our understanding of music. Incorporating imaginative explanations such as the practices of other mediums,

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<sup>28</sup> Agawu, “How We Got Out of Analysis,” 279.

<sup>29</sup> Agawu, “How We Got Out of Analysis,” 275.

comparison to instrumentalists, invisible characters, and imagined spaces are all valuable descriptors and classifiers for getting closer to what a piece is about. Though we cannot ever fully reach the “truth content” we can draw closer through these “explanatory props.”<sup>30</sup> Allowing imaginative and interpretive freedom, not just in regards to acousmatic music but to all music as a whole, is vital to deepening our comprehension of music.

It is in this spirit that this analysis serves as an “etude,” or an artistic/intellectual exercise for developing a new skill, in this case the analysis of acousmatic music. The analysis here incorporates imaginative and creative elements that are not objective facts about how the piece unfolds. They are combined with objective observations to demonstrate how both the objective and subjective are valuable and viable modes for producing an analysis of not only acousmatic music, but all music.

### **Conclusion**

This analysis has incorporated empirical, imaginative, and interpretive approaches in order to understand both *Cadenza* and elements of acousmatic practice as a whole. The purpose of this approach has been to seek insight into the work and what it can teach us about how to listen to and interpret both itself and other works. I have proposed certain models, including attention to the use of noise and resonance, the postulation of imaginary agents, and comparison to other musical practices as methods for interpreting, analyzing, and listening to electronic music. These models will not hold for all works contained within the expansive medium of electronic music, but they do provide starting points for a new listener to engage with acousmatic music. The sonic phenomena discussed can be easily identified by most listeners and evaluated critically, allowing a listener to take an active

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<sup>30</sup> Agawu, “How We Got Out of Analysis,” 279.

and imaginative role in the listening process.

The ultimate point is that all music requires active participation on the part of the listener. Acousmatic music, lacking the traditional mediation of a performer's interpretation, a musical score, identifiable pitch structures and rhythms, etc. may require the listener to fill in further blanks, but the effort required is highly rewarding. The uniqueness of any work is the particular avenue that it opens for our imagination to roam. Music does not prescribe how we are supposed to think or allow only one interpretation or experience. Electronic music or any unfamiliar music may ask more questions of a listener, but considering the answers is part of the pleasure. With this in mind, I have offered an analysis that proposes one potential set of answers to the questions posed by *Cadenza*. In Agawu's view, analysis, "would go on always and forever," (Ibid., 270). This analysis is but one in a number of potential interpretations, interpretations situated in individual listeners that are thus as infinite as the imaginative faculties themselves.

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